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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,899	09/30/2003	Dan Jones	45098.00010.UTL1	8061
36183	7590	11/17/2004	EXAMINER	
PAUL, HASTINGS, JANOFISKY & WALKER LLP P.O. BOX 919092 SAN DIEGO, CA 92191-9092			MOORE JR, MICHAEL J	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,899

Applicant(s)

JONES ET AL.

Examiner

Michael J. Moore, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities: In Figure 7, the word "authenticate" is spelled wrong in step 714. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: On page 27, line 17, the phrase "illustrate din" should be "illustrated in". On page 28, line 3, the word

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"illsutrative" should be "illustrative". Lastly, on page 36, line 16, the phrase "create din" should be "created in". Appropriate correction is required.

Claim Objections

3. Claims **4, 10, 12, 18, 22, 24, 32, 50-52, 62, and 63** are objected to because of the following informalities:

Regarding claim **4**, on line 3, the word "the" before word "media" should be "a".

Regarding claim **10**, on line 6, the word "endpoint" should be "endpoints".

Regarding claim **12**, on line 3, there is a comma needed between words "switch" and "the".

Regarding claim **18**, on line 2, the word "service" after word "detection" should be "services".

Regarding claim **22**, on line 4, the word "an" should be "a". Also, on line 5, the word "for" should be "of". Lastly, on line 6, the word "facility" should be "facilitate".

Regarding claim **24**, on line 3, the word "the" before word "plurality" should be "a".

Regarding claim **32**, on line 3, the word "the" before word "media" should be "a".

Regarding claim **50**, on line 4, the word "message" should be "messages". Also, on line 6, the word "the" before word "connection" is not needed.

Regarding claim **51**, on line 6, the word "the" before word "media" should be "a".

Regarding claim **52**, on line 1, the word "wherein" is needed before word "one". Also, on line 2, the word "medias" should be "media".

Regarding claim **62**, on line 3, the word "the" before word "lightest" should be "a".

Regarding claim **63**, on line 5, the word “services” should be “service”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims **1-63** are rejected under 35 U.S.C. 102(b) as being anticipated by Elliott et al. (U.S. 6,335,927). The Elliott et al. reference teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim **1**, “A collaborative communication system” is anticipated by the video-conferencing architecture shown in Figure 19C. “A plurality of endpoints configured to engage in a collaborative communication session” is anticipated by the plurality of terminals 1, 8, 9, and 10 shown in Figure 19C and spoken of in column 123, line 65 – column 124, line 7. Lastly, “a plurality of media switches, each of the plurality of media switches configured to route messages associated with the collaborative communication session between the plurality of endpoints” is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18.

Regarding claims **2 and 31**, “a plurality of domains, wherein each of the plurality of domains comprises one of the plurality of media switches” is anticipated by the LAN (domain) coupled to switch network 2 (media switches) through LAN interconnect 3 as

well as the plurality of terminals 1, 8, 9, and 10 (domain) coupled to switch network 2 (media switches) all shown in Figure 19C.

Regarding claim 3, "wherein at least some of the plurality of domains comprise more than one of the plurality of media switches" is anticipated by the LAN (domain) coupled to switch network 2 (plurality of media switches) through LAN interconnect 3 as shown in Figure 19C.

Regarding claims 4 and 32, "wherein each of the plurality of domains further comprises core services interfaced with a media switch" is anticipated by the services provided by H.323 server 4 of Figure 19C spoken of in column 124, lines 19-23.

Regarding claim 5, "wherein one of the plurality of domains comprises collaborative communication services that enable the plurality of endpoints to engage in the collaborative communication session" is anticipated by the services provided by H.323 server 4 of Figure 19C spoken of in column 124, lines 19-23.

Regarding claim 6, "wherein at least one of the plurality of domains comprises a non-core service interfaced with the media switch, the non-core service configured to make available distributed collaborative communication services that enable the plurality of endpoints to engage in the collaborative communication session" is anticipated by the video mail server 6 of Figure 19C spoken of in column 125, lines 22-34.

Regarding claims 7, 13, and 35, wherein the distributed collaboration communication services comprise a file sharing service is anticipated by the data communications spoken of in column 125, lines 35-46.

Regarding claims **8, 14, and 36**, wherein the distributed collaboration communication services comprise a video service is anticipated by the video communications spoken of in column 125, lines 35-46.

Regarding claims **9, 15, and 37**, wherein the distributed collaboration communication services comprise an audio conferencing service is anticipated by the voice communications spoken of in column 125, lines 35-46.

Regarding claim **10**, "a service provider domain comprising a plurality of collaborative communication services configured to enable a collaborative communication session and a service provider media switch" is anticipated by the LAN (service provider domain) coupled to switch network 2 (media switch) through LAN interconnect 3 that provides services through H.323 server 4 as shown in Figure 19C. "A client domain comprising a client media switch, a distributed collaborative communication service, and a plurality of endpoints configured to engage in a collaborative communication session using the plurality of collaborative communication services and the distributed collaborative communication service" is anticipated by the plurality of terminals 1, 8, 9, and 10 (endpoints) coupled to switch network 2 (media switch) that perform audio, video, and data services in conjunction with the multipoint control unit (MCU) of H.323 server 4 as shown in Figure 19C.

Regarding claim **11**, "wherein the client media switch is configured to route messages associated with the collaborative communication session between the plurality of endpoints" is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18.

Regarding claim **12**, “wherein the client domain further comprises a non-core service coupled with the client media switch, the non-core service configured to allow the plurality of endpoints to access the distributed collaborative communication service through the client media switch” is anticipated by the video mail server 6 of Figure 19C spoken of in column 125, lines 22-34.

Regarding claim **16**, “wherein the client domain further comprises a plurality of core services” is anticipated by the services provided by H.323 server 4 of Figure 19C spoken of in column 124, lines 19-23.

Regarding claim **17**, “wherein the core services comprise an authentication service configured to authenticate the plurality of endpoints and the collaborative communication session” is anticipated by the authentication service provided by gatekeeper of H.323 server 4 of Figure 19C spoken of on column 128, lines 44-49.

Regarding claim **18**, “wherein the core services comprise presence detection services configured to maintain presence information associated with the plurality of endpoints and the collaborative communication session” is anticipated by H.323 directory server 7 of Figure 19C that maintains a directory of terminal status as spoken of in column 125, lines 47-48 and lines 62-67.

Regarding claim **19**, “wherein the client domain comprises a second client media switch and an endpoint locator service coupled with both the first and second client media switches, the endpoint locator service configured to maintain information related to pairings between the first and second client media switches and the plurality of endpoints” is anticipated by switch network 2 as well as gatekeeper of H.323 server 4 of

Figure 19C responsible for call control signaling with terminals, gateways and MCU as well as admissions control for access to the video-conferencing system (maintaining information) as spoken of in column 124, lines 34-44.

Regarding claim **20**, “wherein the client domain comprises a second client media switch, and wherein the first client media switch is further configured to maintain information related to pairings between the first and second client media switches and the plurality of endpoints” is anticipated by switch network 2 as well as gatekeeper of H.323 server 4 of Figure 19C responsible for call control signaling with terminals, gateways and MCU as well as admissions control for access to the video-conferencing system (maintaining information) as spoken of in column 124, lines 34-44.

Regarding claim **21**, “wherein one of the plurality of endpoints is configured to initiate the collaborative communication session” is anticipated by the initial call signaling and setup messages between the terminals and gatekeeper of H.323 server of Figure 19C as spoken of in column 128, lines 38-42.

Regarding claim **22**, “wherein initiating the collaborative communication session comprises the endpoint indicating an intent to begin a collaborative communication session, receiving a determination of whether the distributed collaborative communication service or one of the plurality of communication services should be used to facilitate the collaborative communication session, and engaging in the collaborative communication session using the one so indicated” is anticipated by the terminal video call initiation (intent) spoken of on column 125, lines 61-67 as well as the destination terminal availability determination spoken of on column 126, lines 1-9.

Regarding claim **23**, “wherein the client domain further comprises a presence detect service coupled with the client media switch, the presence detect service configured to receive the indication from the endpoint, determine whether the distributed collaborative communication service or one of the plurality of collaborative communication services should be used, and to communicate an endpoint address associated with the one so determined to the endpoint” is anticipated by gatekeeper of H.323 server 4 of Figure 19C responsible for admission control that sends a reliable port address to a calling terminal during call establishment as spoken of in column 126, lines 57-61.

Regarding claim **24**, “a media switch configured to route messages associated with a collaborative communication session between a plurality of endpoints” is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18. Lastly, “a media switch service configured to enable the media switch to act as an addressable endpoint” is anticipated by the services provided by H.323 server 4 of Figure 19C used in conjunction with switch network 2 spoken of in column 124, lines 19-23.

Regarding claim **25**, “wherein the media switch is configured to route the messages through another media switch” is anticipated by is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18.

Regarding claim **26**, “wherein each message comprises a plurality of frames” is anticipated by the stream packetization by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, line 50.

Regarding claim **27**, “wherein each of the plurality of endpoints is configured to make a virtual persistent connection with the media switch” is anticipated by the point-to-point connections shown in Figure 19C between switch network 2 and terminals 1, 8, 9, and 10.

Regarding claim **28**, “wherein the media switch is configured to allow an endpoint to access a service” is anticipated by the connection between H.323 server 4 and endpoint 1 of Figure 19C via switch network 2.

Regarding claim **29**, “wherein each of the plurality of endpoints comprises an endpoint address associated with a specific domain, and wherein the media switch is configured to access an address authority and look up a destination endpoint address associated with a message being routed, when the destination address is associated with a domain that is different from the domain associated with the media switch” is anticipated by gatekeeper of H.323 server 4 of Figure 19C responsible for admission control that sends a reliable port address to a calling terminal during call establishment as spoken of in column 126, lines 57-61.

Regarding claim **30**, “a plurality of collaboration communication services” is anticipated by the services provided by H.323 server 4 of Figure 19C spoken of in column 124, lines 19-23. “A plurality of endpoints configured to engage in a collaborative communication session using the collaboration communication services” is anticipated by the plurality of terminals 1, 8, 9, and 10 shown in Figure 19C and spoken of in column 123, line 65 – column 124, line 7. “A plurality of media switches, each of the plurality of media switches configured to route messages associated with the

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collaborative communication session between a plurality of endpoints" is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18.

Lastly, "a presence service configured to track information related to each of the plurality of endpoints and to allow endpoints to locate and reserve the use of plurality of collaboration communication services" is anticipated by H.323 directory server 7 of Figure 19C that maintains a directory of terminal status as spoken of in column 125, lines 47-48 and lines 62-67.

Regarding claim **33**, "wherein one of the plurality of domains is associated with a collaborative communication service provider and comprises all of the collaborative communication service needed for the plurality of endpoints to engage in a collaborative communication session" is anticipated by the services provided by H.323 server 4 (associated with domain) of Figure 19C spoken of in column 124, lines 19-23.

Regarding claim **34**, "wherein some of the plurality of collaborative communication services are distributed collaborative communication services, and wherein at least one of the plurality of domains comprises a non-core service interfaced with the media switch, the non-core service configured to make available distributed collaborative communication services to the plurality of endpoints" is anticipated by the video mail server 6 (non-core service) of Figure 19C spoken of in column 125, lines 22-34 that is distributed to terminals 1, 8, 9, and 10.

Regarding claim **38**, "wherein the presence service is configured to receive a published presence for each of the plurality of endpoints" is anticipated by H.323

directory server 7 of Figure 19C that maintains a directory of terminal status as spoken of in column 125, lines 47-48 and lines 62-67.

Regarding claim **39**, “wherein each of the plurality of endpoints is configured to define a set of attributes that define the presence information to be stored by the presence service for that attribute” is anticipated by the endpoint availability (set of attributes) spoken of in column 126, lines 1-9 provided by H.323 directory server 7 of Figure 19C.

Regarding claim **40**, “wherein the presence service is configured to receive from each of the plurality of endpoints subscriptions to presence information related to other endpoints” is anticipated by the endpoint availability determination spoken of in column 126, lines 1-9 provided by H.323 directory server 7 of Figure 19C.

Regarding claim **41**, “wherein the presence service is configured to detect a change in state of the presence of an endpoint of the plurality of endpoints and inform all endpoints that subscribed to presence information related to the endpoint of the change in state” is anticipated by the endpoint availability determination spoken of in column 126, lines 1-9 provided by H.323 directory server 7 of Figure 19C.

Regarding claim **42**, “wherein the presence service is configured to receive locate and reserve messages from an endpoint attempting to locate and reserve a collaborative communication service” is anticipated by the terminal video call initiation (reservation) spoken of on column 125, lines 61-67 as well as the destination terminal availability determination (location) spoken of on column 126, lines 1-9.

Regarding claim **43**, "wherein the presence service is configured to synchronize the received locate and reserve messages" is anticipated by the stream synchronization procedures spoken of in column 124, lines 50-51.

Regarding claim **44**, "wherein the presence service is configured to store presence state for each of the plurality of endpoints" is anticipated by H.323 directory server 7 of Figure 19C that maintains a directory of terminal status as spoken of in column 125, lines 47-48 and lines 62-67.

Regarding claim **45**, "an endpoint locator comprising information related to the presence for each of the plurality of endpoints, and wherein the presence detector is configured to obtain the presence state for each of the plurality of endpoints from the endpoint locator" is anticipated by gatekeeper of H.323 server 4 of Figure 19C responsible for call control signaling with terminals, gateways and MCU as well as admissions control for access to the video-conferencing system (information related to presence) as spoken of in column 124, lines 34-44.

Regarding claim **46**, "wherein the presence service is configured to store entity availability for each of the collaborative communication services" is anticipated by the endpoint availability determination spoken of in column 126, lines 1-9 provided by H.323 directory server 7 of Figure 19C.

Regarding claim **47**, "wherein the presence service is configured to store entity type for each of the plurality of endpoints" is anticipated by the endpoint availability determination spoken of in column 126, lines 1-9 provided by H.323 directory server 7 of Figure 19C.

Regarding claim **48**, “wherein the presence service is configured to store a network address for each of the plurality of endpoints” is anticipated by the port address assignment spoken of in column 126, lines 57-61.

Regarding claim **49**, “wherein the presence service is configured to store extended attributes for each of the plurality of endpoints” is anticipated by the port address assignment spoken of in column 126, lines 57-61.

Regarding claim **50**, “a plurality of media switches, each of the plurality of media switches configured to route multi-media messages generated by a plurality of endpoints to a destination endpoint” is anticipated by the switch network 2 shown in Figure 19C and spoken of in column 124, lines 8-18. Lastly, “an endpoint locator function configured to store connection and route information for each of the plurality of endpoints” is anticipated by the terminal call control signaling (route information) and admissions control (connection information) performed by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, lines 34-39.

Regarding claim **51**, “an endpoint locator service coupled with each of the plurality of media switches, the endpoint locator service configured to provide the endpoint locator function, and wherein each of the plurality of media switches is configured to register with the endpoint locator when the media switch is first activated” is anticipated by gatekeeper (endpoint locator service) of H.323 server 4 of Figure 19C that performs terminal call control signaling and admissions control (function) as spoken of in column 124, lines 34-39 in conjunction with switch network 2 (registration) of Figure 19C.

Regarding claim **52**, “wherein one of the plurality of media switches is a master media switch configured to provide the endpoint locator function, and wherein each of the other media switches is configured to register with the master media switch when the other media switches are first activated” is anticipated by the switch network 2 (master media switch) shown in Figure 19C and spoken of in column 124, lines 8-18.

Regarding claim **53**, “wherein the endpoint locator function is configured to receive a registration request from a media switch and respond to the registration request by providing the route information for each of the plurality of endpoints” is anticipated by the terminal call control signaling (route information) and admissions control (connection information) performed by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, lines 34-39 in conjunction with switch network 2 (registration) of Figure 19C.

Regarding claim **54**, “wherein each of the plurality of media switches is configured to inform the endpoint locator function each time one of the plurality of endpoints connects with the media switch” is anticipated by the admissions control (connection to switch) performed by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, lines 34-39 in conjunction with switch network 2 of Figure 19C.

Regarding claim **55**, “wherein the endpoint locator function is configured to update other media switches each time the endpoint locator function receives an update from one of the plurality of media switches” is anticipated by the admissions control (connection to switch) performed by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, lines 34-39 in conjunction with switch network 2 of Figure 19C.

Regarding claim **56**, “wherein the endpoint locator function is configured to detect when one of the plurality of media switches has disconnected and to inform the rest of the plurality of media switches of the disconnect” is anticipated by the admissions control (detection) performed by gatekeeper of H.323 server 4 of Figure 19C spoken of in column 124, lines 34-39 in conjunction with switch network 2 of Figure 19C.

Regarding claim **57**, “a backup endpoint locator function, wherein each of the plurality of switches is configured to detect when the primary endpoint locator function is not available and to register with the backup endpoint locator function in response” is anticipated by gatekeeper (endpoint locator service) of H.323 server 4 of Figure 19C that performs terminal call control signaling and admissions control (function) as spoken of in column 124, lines 34-39 in conjunction with switch network 2 (registration) of Figure 19C.

Regarding claim **58**, “a method for collaborative communication” is anticipated by the video-conferencing performed by the system shown in Figure 19C. “Receiving locate and reserve messages from an endpoint attempting to locate and reserve a collaborative communication service” is anticipated by the terminal video call initiation (reservation) spoken of on column 125, lines 61-67 as well as the destination terminal availability determination (location) spoken of on column 126, lines 1-9. Lastly, “synchronizing the received locate and reserve messages” is anticipated by the stream synchronization procedures for different services spoken of in column 124, lines 50-51.

Regarding claim **59**, “in response to the received locate and reserve messages, determining which of a plurality of possible collaborative communication services should

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be used, and reserving the collaborative communication service so determined" is anticipated by the destination terminal availability determination spoken of on column 126, lines 1-9.

Regarding claim **60**, "communicating an endpoint address associated with the collaborative communication service so determined to the endpoint" is anticipated by gatekeeper of H.323 server 4 of Figure 19C that sends a reliable port address to a calling terminal during call establishment as spoken of in column 126, lines 57-61.

Regarding claim **61**, "determining a load associated with each of the plurality of collaborative communication services" is anticipated by the destination terminal availability (load) determination spoken of on column 126, lines 1-9.

Regarding claim **62**, "selecting the collaborative communication service with the lightest load" is anticipated by the destination terminal availability (load) determination spoken of on column 126, lines 1-9.

Regarding claim **63**, "determining which of the plurality of collaborative communication services are located in a domain with the endpoint and selecting a collaborative communication service that is so located" is anticipated by the services provided by H.323 server 4 (associated with domain) of Figure 19C spoken of in column 124, lines 19-23.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rottou (U.S. 5,933,417), Wiryaman (U.S. 6,157,401), Mattaway

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(U.S. 6,728,784), Roy (U.S. 6,785,244), and Burger et al. (U.S. 2003/0055899) are all references that contain material pertinent to this application.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM


FRANK DUONG
PRIMARY EXAMINER